

REQUEST FOR PROPOSALS

MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) 911 GIS Data Enhancement Project



November 2002

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PUBLIC NOTICE

REQUEST FOR PROPOSALS

MAG 911 GIS DATA ENHANCEMENT PROJECT

The Maricopa Association of Governments (MAG) is requesting proposals from qualified consultants for the enhancement of the MAG 911 GIS database to assist the 26 Public Safety Answering Points (PSAPs) in the region to locate wireless 911 callers. The estimated time frame for this project is approximately six to nine months, five days a week eight hours a day, from the date of the notice to proceed.

Detailed proposal requirements may be obtained by contacting the MAG Office at the address indicated below or by visiting the MAG Website at www.mag.maricopa.gov. For further information, please contact Susan MacFarlane by fax at (602) 534-1108, or by e-mail at susan.macfarlane@phoenix.gov.

Proposals will be accepted until 12:00 noon (Mountain Standard Time) on December 5, 2002, at MAG, 302 North 1st Avenue, Suite 300, Phoenix, Arizona 85003.

SCOPE OF WORK

INTRODUCTION

The Maricopa Association of Governments (MAG) is requesting proposals from qualified consultants for the enhancement of the MAG 911 GIS database to assist the 26 Public Safety Answering Points (PSAPs) in locating wireless 911 callers. Through a revolving fund administered by the Arizona Department of Administration (ADOA), the MAG region receives funding for operating the Maricopa Region 911 System. Payment shall be made to the consultant by the ADOA for work deemed acceptable by MAG. The Phoenix Fire Department presently administers the contract for customer premises equipment (CPE), network facilities for the PSAPs within the MAG 911 System, and the GIS data to be used in locating wireless 911 calls.

The objective of this contract is to enhance data accuracy and completeness of the GIS data maintained by the Phoenix Fire Department (PFD) for emergency services delivery and produce a synchronized GIS street centerline file and Master Street Address Guide (MSAG) for distribution to the 26 PSAPs in the MAG Region. This enhanced database will enable the PSAPs to locate wireless 911 callers.

The successful consultant must provide personnel that are well versed in geographic information systems concepts and are proficient with the entire suite of ESRI products (including SDE). The consultant shall be responsible for identifying and correcting the errors identified below. Comparison between the current PFD GIS data, the MAG 911 Automatic Location Identification (ALI) database, and the MSAG will identify these errors. The MAG MAGNET file is another source of data that can be utilized for comparison purposes. A 99% error correction rate will be required for all identified errors. Additional requirements may be identified during project reviews with prospective consultants.

(The items listed are not in a prioritized order but should include)

Street arcs

- Check for overlap in address ranges
- Check for gap in address ranges with adjoining arcs with same name and direction
- Check for even/odd address parity on same arc
- Check for even/odd address parity with adjoining arcs with same name and direction
- Check for low addresses greater than high addresses
- Check street name spelling against existing street names
- Street direction validation
- Street type validation
- Street suffix direction validation
- City code validation
- Falls within subzone polygon
- Falls within AVL zone polygon
- Falls within Emergency Service Number (ESN) boundaries
- Arc split to calculate new address ranges based on length of arc segments
- Phoenix streets fall within police grid
- Phoenix streets fall within police beat
- Phoenix streets fall within council district

Subzone polygons

All street arcs within subzone have same city code
Node exists where subzone intersects street arc

ESN polygons

All street arcs within ESN have city code corresponding to ESN
Nodes exists where ESN intersects street arc

Map page polygons

Unique name
Node exists where map page intersects street arc

AVL zone polygons

Unique ID
Node exists where AVL zone intersects street arc

MAG 911 OFFICE/PFD RESPONSIBILITIES

The MAG 911 Office and PFD will provide all hardware, software and workspace necessary to complete the requirements of this project. All tasks associated with this project are to occur on site at the PFD and will require daily interaction with the MAG 911 GIS Manager, MAG 911 Administrator, MAG MSAG Coordinator and PFD GIS Personnel.

Proposed Tasks

The consultant is encouraged to be creative in developing a sound analytical approach, which achieves the goals for this project. The consultant is urged to be as specific as possible when describing the activities that will be performed to support each task. The consultant is also urged to make maximum use of matrices, tables and drawings in working papers produced for the project to insure conciseness and clarity and to minimize the amount of text required. In preparing a proposal for consideration by MAG, the consultant will not be required to adhere strictly to the proposed tasks specified below. Additional tasks may be warranted.

Task 1 Refine Scope of Work

Throughout the course of this project, inquiry and discussion may result in some revisions to the Scope of Work and Project Schedule. As necessary, the consultant will refine the Scope of Work for this project based upon professional experience and input from MAG. This work will be performed under the general direction of the MAG 911 Administrator. The consultant will prepare documentation of any such revision, including a revised labor/dollar allocation and project task cost breakdown, and submit the revision to MAG for approval.

Task 2 Data Comparison

The consultant will conduct a data comparison between the current PFD GIS database, the MSAG, and the Maricopa Region 911 ALI database. The MAG 911 Administrator will make each of these databases available to the consultant. The MAGNET file can be utilized as an additional source of data.

Task 3 Data Enhancement

The consultant will work with PFD GIS personnel, the MAG MSAG Coordinator, and the MAG 911 GIS Manager to resolve the discrepancies discovered in the data comparison process. The 911 Administrator will provide QA/QC tools developed to assist the error resolution process. An extensive user manual for the QA/QC tools will be provided to explain the use of the tools that address street centerline file issues. The consultant may be required to enhance or modify these tools to complete the task defined.

Task 4 Develop a synchronized GIS street centerline file and MSAG

Based on the error resolutions of the databases the consultant with assistance from MAG 911 personnel and PFD will develop a synchronized GIS street centerline file and MSAG for the MAG Region.

DELIVERABLE PRODUCTS

The deliverable products of this project are listed below.

1. A revised scope of work paper and project timeline schedule that outlines any additions, deletions or changes to the scope of work will be provided to the MAG 911 Administrator. The paper will be provided in electronic format and one hard copy format
2. An assessment report detailing the quantity and type of errors identified between the PFD GIS database, the MSAG, and the MAG 911 ALI database. Revisions to the project timeline can be included in the assessment report should the database comparison indicate the need for more or less time to complete the project. The assessment will be provided in electronic format and one hard copy format.
3. A monthly report outlining how the errors are being resolved along with the number of errors remaining will be provided to the MAG 911 Administrator. The report will be provided in electronic format and one hard copy format.
4. A synchronized GIS street centerline file and MSAG database with a minimum accuracy of 99% will be provided to the MAG 911 Administrator along with a final report detailing any anomalies with the database and an explanation of any remaining errors. The report shall be provided in electronic format and one hard copy format.

5. A final report is to be submitted that details recommendations for the ongoing maintenance of the synchronized GIS street centerline file and MSAG database. This report will be provided in electronic format and one hard copy format.

PROPOSAL REQUIREMENTS

PROJECT COST AND SCHEDULE

The estimated time frame for this project is six to nine months from the date of the notice to proceed, with intermediate deliverables due in accordance with the schedule as agreed to between MAG and the consultant(s). The date of the notice to proceed is anticipated to be January 2003.

Proposal Delivery

1. Six (6) copies of the proposal must be submitted by 12:00 p.m. (Mountain Standard Time) on December 5, 2002.

Maricopa Association of Governments
Attention: Susan MacFarlane, MAG 911 Administrator
302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003

Timely receipt of proposals will be determined by the date and time the proposal is received at the above address. Hand delivery is therefore encouraged.

Proposals will be opened publicly and the name of each entity submitting a proposal will be read at 2:00 p.m. on December 5, 2002 at the MAG Offices, Ocotillo Room, 302 North 1st Avenue, Suite 200 Phoenix, Arizona, 85003.

All material submitted in response to this solicitation becomes the property of MAG and will not be returned.

2. Any questions regarding this Request for Proposals should be directed to Susan MacFarlane, MAG 911 Administrator, 150 S. 12th Street, Phoenix, AZ 85034, by fax at (602) 534-1108; or by email at susan.macfarlane@phoenix.gov. Additional information regarding MAG activities may be found on the web site (<http://www.mag.maricopa.gov>).

Proposal Content

It is required that the proposal:

1. Includes a cover letter, resumes and any appendices. A party authorized to bind the entity submitting the proposal must sign the cover letter.
2. Be prefaced by a brief statement describing the proposer's organization and outlining its approach to completing the work required by this solicitation. This statement shall illustrate the proposer's overall understanding of the project.

3. Contain a work plan, which concisely explains how the consultant will carry out the objectives of the project. In the work plan, the proposer shall describe each project task and proposed approach to the task as clearly and thoroughly as possible.
4. Include a preliminary schedule for the project. Indicate all work plan tasks and their durations. The schedule shall clearly identify project deliverable dates.
5. Contain a staffing plan for the project. The plan shall include the following:
 - a. A project organization chart, identifying the Project Manager.
 - b. Names of key project team members and/or subconsultants. Only those personnel who will be working directly on the project should be cited.
 - c. The role and responsibility of each team member.
 - d. Percent effort (time) of each team member for the contract period.
 - e. The role and level of MAG technical staff support, if any.
6. Include resumes for major staff members assigned to the project. These résumés should focus on their experience in this type of project.
7. Each firm submitting a proposal is required to certify that it will comply with, in all respects, the rules of professional conduct set forth in A.C.R.R. R4-30-301 (see Appendix A), which is the official compilation of Administrative Rules and Regulations for the State of Arizona.
8. Include proposer's recent experience (last five years) in performing work similar to that anticipated herein. This description shall include the following:
 - a. Date of project.
 - b. Name and address of client organization.
 - c. Name and telephone number of individual in the client organization who is familiar with the project.
 - d. Short description of project.
 - e. Consultant team members involved and their roles.
9. A labor cost allocation budget formatted as noted in Appendix B.
10. All firms proposing on this project will be required to include a “*Proposer’s Registration Form*” (See Appendix C) in the submitted proposal. In addition, a “*Proposer’s*

Registration Form” is required to be included for each subcontractor proposed for this project.

11. Each firm shall document within its proposal any potential conflicts of interest. A conflict of interest shall be cause for disqualifying a consultant from consideration. A potential conflict of interest includes, but is not limited to:
 - a. Accepting an assignment where duty to the client would conflict with the consultant’s personal interest, or interest of another client.
 - b. Performing work for a client or having an interest which conflicts with this contract.
 - c. Employing personnel who worked for MAG or one of its member agencies within the past three years.

MAG will be the final determining body as to whether a conflict of interest exists.

PROPOSAL EVALUATION AND SELECTION PROCESS

1. All proposals will be evaluated by an evaluation group. Evaluation criteria include the following:
 - a. Demonstrated understanding of the project through a well-defined work plan consistent with program objectives.
 - b. Clarity of proposal, realistic approach, technical soundness, and enhancements to elements outlined in this Request for Proposals.
 - c. Experience of Project Manager and other project personnel in similar studies. Only those personnel assigned to work directly on the project should be cited.
 - d. Proven track record in this area of study. Proposers should identify the principal people who worked on past projects and the amount of time they devoted to the work effort.
 - e. Availability of key personnel throughout the project effort.
 - f. Price.
 - g. Ability and commitment to complete the project within the specified time period, meet all deadlines for submitting associated work products, and ensure quality control.
 - h. Recognition of work priorities and flexibility to deal with change and contingencies.
2. On the basis of the above evaluation criteria, selected firms submitting proposals may be interviewed prior to the selection of a consultant. MAG strongly suggests that the Project Manager and key members of the consultant team be present at the interview.
3. MAG may conduct discussions with offerors who submit proposals determined to be reasonably susceptible of being selected for award.
4. MAG reserves the right to:
 - a. Cancel this solicitation.
 - b. Reject any and all proposals and re-advertise.
 - c. Select the proposal(s) that, in its judgment, will best meet its needs.
 - d. Negotiate a contract that covers selected parts of a proposal, or a contract that will be interrupted for a period or terminated for lack of funds.

ADMINISTRATIVE REQUIREMENTS

1. This Request for Proposals is for a cost-reimbursement plus fixed fee contract. Monthly payments will be made to the consultant after the MAG 911 Administrator deems an adequate amount of work has been accomplished as outlined in the monthly progress report outlined in Deliverable 3. An invoice should also be submitted with the report.
2. MAG shall retain ten percent (10%) of the contract amount, withheld from each invoice, as final payment until completion of the project to the satisfaction and acceptance of the work. Final payment shall be made after acceptance of the final product and invoice.
3. An audit examination of the consultant's records may be required.
4. The firm that is selected will be required to comply with Titles VI and VII of the Civil Rights Act of 1964. The contractor will comply with Executive Order 11246, entitled Equal Employment Opportunity, as amended by Executive Order 11375 and as supplemented in Department of Labor Regulations (41 CFR Part 60). The contractor will also be required to comply with all applicable laws and regulations of the U.S. Department of Transportation.
5. The firm selected will be required to comply with MAG insurance requirements, which may include: Workmen's Compensation, Architects and Engineers Professional Liability insurance, Comprehensive General Liability insurance, Business Automobile Liability insurance, and Valuable Papers insurance.

APPENDIX A

ARIZONA ADMINISTRATIVE CODE R4-30-301

ARTICLE 3. REGULATORY PROVISION

R4-30-301. Rules of professional conduct:

- A. All registrants shall comply substantially with the following standards of professional conduct:
1. A registrant shall not submit any materially false statements or fail to disclose any material facts requested in connection with his application for certification.
 2. A registrant shall not engage in fraud, deceit, misrepresentation, or concealment of material facts in advertising, soliciting, or providing professional services to members of the public.
 3. A registrant shall not knowingly sign, stamp, or seal any plans, drawings, blueprints, land surveys, reports, specifications, or other documents not prepared by the registrant or his bona fide employee.
 4. A registrant shall not knowingly commit bribery of a public servant as proscribed in A.R.S. 13-2602, or knowingly commit commercial bribery as proscribed in A.R.S. 13-2605, or violate any Federal statute concerning bribery.
 5. A registrant shall comply with all Federal, State, and local building, fire, safety, real estate, and mining codes, and any other laws, codes, ordinances, or regulations pertaining to the registrant's professional practice.
 6. A registrant shall not violate any State or Federal criminal statute involving fraud, misrepresentation, embezzlement, theft, forgery, or breach of fiduciary duty, where the violation is related to the registrant's professional practice.
 7. A registrant shall apply the technical knowledge and skill which would be applied by other qualified registrants who practice the same profession; a contemporary "Manual of Surveying Instructions" issued by the Bureau of Land Management, United States Department of Interior and in effect prior to May 23, 1983 to the extent applicable to that professional engagement.
 8. A registrant shall not accept an assignment where the duty to a client or the public would conflict with the registrant's personal interest or the interest of another client without full disclosure of all material facts of the conflict to each person who might be related to or affected by the project or engagement in question.

9. A registrant shall not accept compensation for services related to the same project or professional engagement for more than one party without making full disclosure to all such parties and obtaining the express written consent of all parties involved.
10. Except as provided in Paragraph 11 of this rule, a registrant shall not accept any professional engagement or assignment outside his professional registration unless:
 - a. He is qualified by education, technical knowledge, or experience to perform such work, and
 - b. Such work is both necessary and incidental to the work of his profession on that specific engagement or assignment.

A registered professional engineer may accept professional engagements or assignments in branches of engineering other than that branch in which he has demonstrated proficiency by registration, but only if he has the education, technical knowledge, or experience to perform such engagements or assignments.

11. Except as otherwise provided by law, code, ordinance, or regulation, a registrant may act as the prime professional for a given project and select collaborating professionals; however, the registrant shall perform only those professional services for which he is qualified by registration to perform and shall seal and sign only the work prepared by him or by his bona fide employee working under his direct supervision.
12. A registrant shall make full disclosure to all parties concerning:
 - a. Any transaction involving payments to any person for the purpose of securing a contract, assignment, or engagement, except for actual and substantial technical assistance in preparing the proposal; or
 - b. Any monetary, financial, or beneficial interest the registrant may hold in a contracting firm or other entity providing goods or services, other than the registrant's professional services, to a project or engagement.
13. A registrant shall not solicit, receive, or accept compensation from material, equipment, or other product or services suppliers for specifying or endorsing their products, goods, or services to any client or other person without full written disclosure to all parties.

APPENDIX B

LABOR COST ALLOCATION BUDGET

LABOR COST ALLOCATION BUDGET - SAMPLE

CONSULTANTS											
Person	Hourly Rate	1	2	3	4	5	6	7	8	Total Hours	Total Cost
(NAME)	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$00.00
(NAME)	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$00.00
(NAME)	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$00.00
(NAME)	\$0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$00.00
Total Hours		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$00.00
Total Cost		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Hours Inception to Date		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

REIMBURSABLE EXPENSES		EXPENSES BY TASK									
Description		1	2	3	4	5	6	7	8	Total Cost	
Office Supplies		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Photocopying/printing		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Travel		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Miscellaneous		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
*any other category as needed (e.g., aerial photos)		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Total Reimbursable Expenses		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	

SUBCONTRACTORS	Hourly Rate	HOURS BY TASK										
Company		1	2	3	4	5	6	7	8	Total Hours	Total Cost	% of Grand Total
(NAME)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$0.00	
(NAME)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$0.00	
Total Hours		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$0.00	
Total Cost		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Hours Inception to Date		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$0.00	

GRAND TOTAL		TOTAL COSTS BY TASK									
Description		1	2	3	4	5	6	7	8	Total	
Consultant Cost		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Consultant Overhead@	1.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Reimbursable Expenses		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Subcontractors		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Sub-Total		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Retainage@	0.10	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
GRAND TOTAL		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	

APPENDIX C

PROPOSER'S REGISTRATION FORM

PROPOSER'S REGISTRATION FORM

All firms proposing as prime contractors or subcontractors on Maricopa Association of Governments (MAG) projects are required to be registered. **Please complete this form and return it with your proposal.**

If you have any questions about this registration form, please call the MAG Fiscal Services Manager, (602) 254-6300.

1. GENERAL INFORMATION:

Name of Firm:

Street Address:
City, State, ZIP

Mailing Address:
City, State, ZIP

Telephone Number:

Fax Number:

E-mail address:

Web address:

Year firm was established:

Check all that apply:

Is this firm a prime consultant? _____

Is this firm a sub-consultant? _____

Is this firm a certified DBE? _____

Is this firm currently debarred? _____

Is this firm currently the subject of debarment proceeding? _____

Identify specialty: _____

If so, by whom? _____

2. FINANCIAL INFORMATION

Firm's annual gross receipts (average of last 3 years):

_____ <\$300,000
_____ \$300,000 - \$599,999
_____ \$600,000 - \$999,999
_____ \$1,000,000 - \$4,999,999
_____ >\$5,000,000

Information will be maintained as confidential to the extent allowed by federal and state law.

The undersigned swears that the above information is correct. Any material misrepresentation may be grounds for terminating any contract which may be awarded and initiating action under federal and state laws concerning false statements.

Name, Title

Date